# **Guest Editors' Introduction: Governing the Sustainable City**

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The term "sustainable city" is now an inescapable part of the urban studies lexicon, but what does it mean in practice to be a sustainable city? The answer, of course, depends on to whom and in what context the question is asked. In fact, recent work suggests that local elected officials and local government administrators define and pursue sustainability in very different ways (Francis and Feiock, 2011; Zeemering, 2009).

Sustainability is often referred to as the three Es: environment, economy, and equity. These three pillars of sustainability are critical to the United Nations' Brundtland Commission's conception that sustainable development "... meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987: Part I, Chapter 2). Sustainability- and climate change-planning documents often borrow this definition, but conceptualizing sustainability in terms of the three Es fails to add precision to its definition because the three Es are not always compatible. In many instances, policy actions involve tradeoffs among the three Es. Despite wide acceptance of the United Nations definition, observations of sustainability plans in U.S. cities and studies of program implementation demonstrate that, in practice, sustainability often means primarily environmental sustainability, especially as it relates to the causes and consequences of climate change. This introduction focuses on issues of scale, policy instruments, and governance to examine local government sustainability actions and to frame the research that follows in this symposium. In this way, we provide a foundation for understanding how sustainability is defined across communities, the scope of various conservation initiatives, and the many challenges municipalities face in encouraging and implementing sustainable practices both in government and among their citizenry.

## **Issues of Scale**

The first issue relates to scale. We use the word *scale* in reference to the spatial or geographic scope of sustainability problems and their match to the spatial areas defined by local government boundaries. The issue of scale is critical to understanding city sustainability efforts because it begs the question of why cities initially engage in climate protection efforts. Local sustainability initiatives

defy the accepted logic of collective action (Olson, 1965), which predicts that local governments will not voluntarily invest in climate-change efforts. Instead, cities are expected to free ride on the efforts of other governments, because a city's contribution to the collective good is minimal and the benefits generated are nonexcludable (that is, the benefits are impossible to compartmentalize and deny to others). Carbon emissions in particular are global pollutants, so local residents share any environmental benefit with every living being on the planet. Thus, the rapid adoption and diffusion of city-level energy and climate-protection policies, in the absence of strong state or federal incentives to do so, pose a curious puzzle for social science theories of policy adoption and collective action.

Why do local officials pursue climate policy initiatives when the benefits must be shared? Local officials are often able to overcome collective action problems because sustainability programs produce local, community-specific benefits such as the reduction of energy costs, pollution, and traffic congestion. Sustainability programs can also be a tool to attract economic development, protect environmental amenities, and enhance community health and livability.

In addition to taking advantage of these selective benefits, local governments are uniquely positioned in the U.S. federal system to address a range of activities that directly contribute to climate change, from land use to electricity consumption. Municipal governments have tools to directly address energy efficiency, conservation, and carbon emissions through their well-established role in regulation and service delivery. Despite local governments' ability to take the lead on energy and climate issues, there is very little scholarship examining what factors account for local adoption of sustainability programs.

At what scale or scales should climate policy be carried out? As the locus of research interest and policy activity shifted rapidly from the global to the local scale, researchers have overlooked the role of metropolitan regions. Energy-efficiency and sustainability programs produce benefits other than making the community more sustainable: they can attract green economic development; reduce air pollution, sprawl, and traffic congestion; and reduce energy costs for government, business, and residents. These additional benefits, or *co-benefits* as the academic literature refers to them, are considered the primary motivation for city sustainability. Nevertheless, many of these benefits of sustainability are realized at the regional scale, not the city scale, because the benefit for a particular city will depend on the actions of its neighboring governments. Cities, not regions, possess the zoning and land use powers necessary to address climate issues. This spatial mismatch produces a collective action problem for cities. Sustainability encompasses actors across city and county lines linked through shared infrastructure and communication networks.

Regional actions also improve the efficiencies of transboundary decisions, coordinating collective goods to achieve economies of scale and reducing the transaction cost of the sustainability programs a city enacts. Regional networks, organizations, and institutions are needed to address the co-benefits of sustainability to enhance positive externalities and provide potential institutional mechanisms to reduce negative externalities.

# **Policy Instruments**

The second issue relates to the policy approach and instruments applied to addressing climate and sustainability problems. The first question to ask is, "Who is the target of sustainability efforts?" Policies and programs that are part of a sustainability program often have another primary goal, besides sustainability. For example, public transportation and smart growth development might be adopted to address traffic and infrastructure congestion, but they also produce sustainability benefits by reducing carbon emissions. Thus, an important issue is the alignment of the primary policy goals with sustainability. Local programs can be directed to individuals and individual behavior or to organizations and firms.

Extant research has not addressed the relationships between and among *supply-side* and *demand-side* policy instruments. These distinctions are central to public choice and welfare economics theories (Weimer and Vining, 2004). On the demand side, programs that seek to influence behavior can target voluntary consumer action through taxes and other incentives, or they can mandate behavior with regulation. Supply-side instruments target the energy production technologies of utilities and municipal governments.

Whether programs target government or the community has environmental and political consequences. Climate policies might be directed to inhouse governmental operations to increase the energy efficiency and reduce the emissions of local government facilities, transportation, and operations. Alternatively, they can be directed outward to promote or restrict the actions of nongovernmental actors in the larger community. For example, green building programs can be applied to government by requiring compliance with energy-efficiency standards or certification for public buildings. Green building can also be applied in the broader community by requiring or providing incentives for energy efficiency in permitted new development. The approaches that municipal governments take vary substantially (Bae and Feiock, forthcoming; Francis and Feiock, 2011). Both research and practice can benefit from a more informed understanding of the portfolio of sustainability policies available, the relationships among various policy instruments, and the political and distributional consequences of those relationships.

## Governance, Institutions, and Sustainability

The third issue relates to the institutional structure of local government and the role of politics in sustainability decisions. Structure and governance matter internally in terms of political institutions for making policy decisions and externally in terms of linking cities to other governments in their region and beyond. Differences in forms of government, such as whether an appointed city manager or a strong elected mayor is present, are important because they shape the motivations, incentives, and constituencies of local decisionmakers. Professional city managers are presumed to emphasize efficiency over responsiveness, but a lack of systematic evidence exists on which to base this conclusion (Clingermayer and Feiock, 2001). This distinction is reflected in decisions to pursue cost saving in governmental operations or to target the constituencies of nongovernmental actors in the larger community.

The complexity of sustainability issues requires internal and external governance mechanisms to manage them. Within a single government, functional agencies such as planning, public works, transportation, environmental services, development, and energy services share responsibility for programs that can be part of a sustainability portfolio. Integration can sometimes take the form of a dedicated sustainability office, coordination through a mayor's or manager's office, or through formal or informal networks among agencies and employees.

Governance is further complicated by the complex nature of sustainability efforts that crosscut issues such as pollution, land use, transportation, and water use. In addition, because the geographic scale of even the most local sustainability problems encompasses the jurisdictions of multiple local governments, larger scale (for example, regional) governance to mitigate collective action dilemmas might be the critical link in activating cities to undertake individual initiatives and collaborative actions. Regional governance can both link actors in networks and create institutions, or rules, for how regional policy is structured. Mechanisms to mitigate collective action dilemmas among local governments range from informal policy networks to consolidated governments, and these alternatives differ in how much autonomy is accorded to individual cities. Although informal policy networks might be immediately effective for some purposes because they preserve the autonomy of involved policy actors, consolidated government resolves collective action problems by centralizing decision authority across scales. These extremes do not tell the whole story, however; as the articles in this symposium illustrate, governance mechanisms between these extremes that are adapted to specific local circumstances often provide more politically acceptable solutions and more effective resolution of sustainability problems.

# **Overview of This Symposium**

Local governments are uniquely positioned to instigate a range of activities that directly address sustainability and climate change, from land use to electricity consumption. Municipal governments have tools to directly address energy efficiency, conservation, and carbon emissions through their well-established role in regulation and service delivery. Nevertheless, in their efforts to do so, they are certain to face challenges of scale, policy instrument design, and governance. The research articles in this symposium address the scale, policy instruments, and governance structures of local sustainability efforts from a variety of perspectives. James H. Svara, Tanya C. Watt, and HeeSoun Jang analyze the kinds of sustainability actions undertaken at the city scale based on a national survey by the International City/County Management Association. They identify the local sustainability policy instruments employed by cities and then investigate what governmental institutions, community demographics, and local policy priorities are associated with city sustainability efforts.

The next article, by Kent E. Portney, addresses the potentially false but pervasive polemic of sustainable development as conflicting with economic development. Portney refutes the claim that "any effort of local government to protect and improve the local biophysical environment represents a restriction on economic development" (Portney, 2013: 45–46). Portney's argument is central to efforts to reconcile the three Es and guide sustainability efforts to combine demand- and supply-side programs.

Christopher V. Hawkins and XiaoHu Wang explicitly test hypotheses based on demand- and supply-side approaches. They present evidence that cities integrate environmentalism into supply-side economic development (consistent with Portney's claims) and address the role of business in influencing policy and the mediating role of governance structures. Gregory S. Burge and Keith R. Ihlanfeldt then delve deeper into the relationships connecting sustainability to development by examining the role of impact fees on the internalization of development externalities. They "describe some ways in which local governments already commonly attempt to deal with development externalities, show how impact fee programs have already been used to correct for some of these problems, comment on the ways existing programs could be improved, and outline the most significant obstacles to using impact fee programs in this expanded capacity" (Burge and Ihlanfeldt, 2013: 83). Impact fees might prove to be a powerful policy instrument in localities where unregulated markets produce externalities. They describe how the tendency toward market mechanisms is intertwined with partisan and political forces in the community.

The next article, by Elisabeth R. Gerber, investigates the influence of party affiliation on sustainability by testing the role of political partisanship on local approaches to climate policy. Gerber notes that the absence of strong federal environmental policy has created a vacuum that local governments have filled. In this circumstance, partisan politics matters at the local scale. She demonstrates the influence of the partisanship of citizens and decisionmakers in the shaping of local sustainability choices. Her analysis suggests that support for sustainability will depend on the specific political constituencies that benefit. Rachel M. Krause explicitly analyzes these motivations to better understand what drives the composition and comprehensiveness of local climate initiatives. Cost savings and efficiencies are often touted as the primary rationale behind decisions to engage in climate-change planning. This stance certainly provides safer political cover, but Krause finds that an altruistic concern for global climate change leads cities to plan more comprehensively for it.

Dorothy M. Daley, Elaine B. Sharp, and Jungah Bae then investigate how the institutional governance structures of local political systems influence the approach cities take to sustainability. They examine why co-benefits such as cost savings are most often aimed at government operations and less often imposed on businesses and residents and why "co-benefits might be less likely to drive decisionmaking when sustainability initiatives are directed to the larger community" (Daley, Sharp, and Bae, 2013: 143). Daley, Sharp, and Bae find that a city's institutional structure is not a significant factor in determining if sustainability initiatives reach the community but that, instead, participation in "interlocal" networks is key to moving sustainability initiatives beyond an intragovernmental enterprise and into the wider community.

Whatever the motivations of the policymakers might be, the technical and administrative capacities of those policymakers' organizations determine the policy effect. Christopher M. Weible and Dallas Elgin examine the issue of capacity by contrasting individual and organizational capacities and examine how varied levels of capacity translate into collaborative and analytic techniques. They find these techniques to vary depending on the city, national, or international scale of involvement in climate and energy activities.

Philip Berke and Ward Lyles offer a solution that enables us to capture the momentum found in networks and collaborative techniques, to plan for climate adaptation in "the age of uncertainty." They note "... the traditional planning paradigm that is chronically deficient in addressing public risks" (Berke and Lyles, 2013: 181) and that a more contemporary conception, which melds collaborative and anticipatory governance, is likely the key to planning in the midst of so many unknowns with potential global consequences. The Berke and Lyles model allows for the flexibility needed as our knowledge of the progression and scope of climate change evolves with improved monitoring, enabling innovation unstifled by static processes and plans.

The coda to this collection is Anu Ramaswami's exploration of the role social actors and policy instruments play in mitigating cities' greenhouse gas footprints. The framework that she provides captures multiple scales by building on life-cycle analysis. Using the case of buildings and energy in Denver, she traces the influence of policy actors and infrastructure operators on sustainability outcomes. Ramaswami challenges the notion of neatly packaged effects by considering transboundary, life-cycle-based emission footprints. This approach once again raises decades-old, yet still salient, arguments concerning regional planning and collaboration and finding the "right" scales to address the causes of social and environmental degradation.

Together, these articles—authored by well-established and emerging leaders in climate-change planning and policy—offer a compendium of the policy instruments and governance structures necessary to understand the social complement to the science of climate change. After all, our ability to protect ourselves from harm is possible only through social action. Optimally, that action is informed by not only climate science but also social science research examining issues of scale, policy instruments, and governance.

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